

# **ENABLING ECOSYSTEM RESTORATION BY CITIZEN VOLUNTEERS**

## **Preface**

The Puget Sound Partnership (PSP) Leadership Council has stated that Puget Sound's health has been compromised by human activity that has occurred, and is occurring, throughout the greater Puget Sound Basin and that work is necessary to restore the natural ecological function and value of the Basin's groundwater, streams, wetlands, lakes and marine waters by 2020. Yet funding to finance this restoration work and governmental agency personnel available to undertake this work are both in short supply. This paper advocates that much of this restoration work can be undertaken by citizen volunteers provided that certain regulatory changes are made to encourage, allow and facilitate citizen initiated involvement in activities that restore natural ecological function.

## **Adverse Ecological Impacts**

The PSP has identified the following adverse impacts on the health of groundwater and surface water bodies in the Puget Sound Basin. These impacts include: Climate change; Residential, Commercial, and Industrial Development; Shoreline and Habitat Modification; Invasive and Non-native Species; and Pollution.

## **Residential, Commercial, and Industrial Development**

The legacy of residential, commercial and industrial development has been surface water runoff conveyed sediment build up in Puget Sound Basin streams, wetlands and lakes. These sediment build ups are rich in organic material and nutrients that render them inhospitable habitat for cold water fish species (salmon, steelhead, and trout) and foster the excessive growth of native, non-native and invasive plant species and toxic algal blooms. Most of these streams, wetlands and lakes run through or are located on or adjacent to private property. Their stewardship is best left in the hands of the owners of the private property that abut these water bodies. Yet current environmental regulations effectively preclude their active stewardship of these degraded water bodies. This is contrary to common sense and the following legislative mandates.

## **RCW 89.08.450 and WAC 173 173-201A-300**

*RCW 89.08.450 Watershed restoration projects - Intent states:*

*The legislature declares that it is the goal of the state of Washington to preserve and restore the natural resources of the state and, in particular, fish and wildlife and their habitat. It is further the policy of the state insofar as possible to utilize the volunteer organizations who have demonstrated their commitment to these goals. To this end, it is the intent of the legislature to minimize the expense and delays caused by unnecessary bureaucratic process in securing permits for projects that preserve or restore native fish and wildlife habitat.*

WAC 173-201A-300 Antidegradation policy (1) (a) and (2) state:

(1) *The purpose of the antidegradation policy is to:*

(a) Restore and maintain the highest possible quality of the surface waters of Washington;

(2) *Habitat restoration. Both temporary harm and permanent loss of existing uses may be allowed by the department where determined necessary to secure greater ecological benefits through major habitat restoration projects designed to return the natural physical structure and associated uses to a water body where the structure has been altered through human action.*

### **The Rationale for Sediment Removal**

The removal of accumulated organic and nutrient rich sediments from degraded streams, wetlands and lakes should be undertaken for the following reasons. Accumulated sediment: (1) Interferes with natural groundwater/surface water exchange and hyporheic function, (2) smothers salmon eggs and macroinvertebrates, (3) nourishes excessive native aquatic plant growth, (4) fosters non-native and invasive plant species growth, (5) generates carbon dioxide [which lowers pH], methane [an asphyxiant] and hydrogen sulfide [toxic], (6) absorbs radiant sunlight energy to heat the overlying water above that tolerated by salmon, (7) heated water holds less dissolved oxygen which is already low as a result of the respiratory oxygen demand of bacteria residing in and feeding upon the organic matter contained in sediment, (8) is the nutrient source and over the winter hibernation habitat for toxic cyanobacteria, (9) the shoaling effect of sediment build up exacerbates wet season flooding of adjacent land owner property, and (10) all of the above diminish beneficial recreational use and devalue the property that abuts a degraded surface water body.

### **Regulatory Impediment to Restoring Sediment Degraded Surface Water Bodies**

A citizen or group of citizens desiring to remove accumulated organic and nutrient rich sediments from surface water bodies on or abutting their property currently have to go through the following regulatory process to restore, at their own cost, the beneficial use and value of a degraded stream reach, wetland or lake shore front that abut their property.

Comply with the provisions of a 1 page WAC 220-110-130 which is pretty straight forward and could be the basis for a pamphlet Hydraulic Project Approval permit.

Comply with the provisions of a 2 page Chapter 173-225 WAC (notification) document.

Read and follow the instructions contained in the 10 page JARPA Form Instruction A: Completing JARPA 2010 document.

Read and follow the instructions in the 18 page JARPA Instruction B: Cell-by-Cell Technical Help document.

Fill out the 13 page JARPA Form pursuant to the above instructions plus a 3 page Attachment B (for additional project locations) form, 1 page Attachment C (contact information for adjoining property owners) form, and 1 page Attachment D (construction sequence) form.

Ask the Pierce County Planning and Land Services Department whether or not they accept the JARPA form and if they do, find out if the citizen will also have to fill out a 12 page WAC 197-11-960 Environmental Checklist for the project.

Unfortunately a citizen will not be able to apply for streamlined processing of a Fish Habitat Enhancement Projects permit in addition to the JARPA because it does not list the removal of organic and nutrient laden sediment as a fish habitat enhancement project.

Read and follow the Site Maps and Drawing and Drawing Checklist instructions since the citizen must include site maps and drawings for his or her JARPA application to be considered complete.

If wetlands are present the citizen will have to include a Mitigation Table pursuant to JARPA instructions.

Before submitting a completed JARPA Form the citizen must be certain to use the One Last Review Before You Submit Your JARPA Package checklist.

All of the above (approximately 50 pages to read and fill out) is required by a citizen volunteer and property owner to obtain the necessary permits to legally remove organic and nutrient laden sediment from "their" sediment degraded stream reach, pond or lake.

### **A Common Sense Alternative**

To RCW 77.55.181 Fish habitat enhancement project – Permit review and approval process add provision (1)(a) (iv) Removal of accumulated organic and nutrient laden sediments so as to restore the natural function and value of salmon bearing streams, wetlands and lakes. And provision (1) (b) (viii) Conducted in compliance with the provisions of a sediment removal pamphlet Hydraulic Project Approval permit.

### **Current Regulatory Climate**

Currently we suffer from regulatory overload, Legislative inaction in this regard, and governmental agency personnel obstructionism or indifference resulting in under involvement and under achievement of what our citizen stewards could do to restore the natural function and value of Puget Sound Basin degraded water bodies, for the benefit both its citizens and salmon. We need environmental regulatory relief!

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